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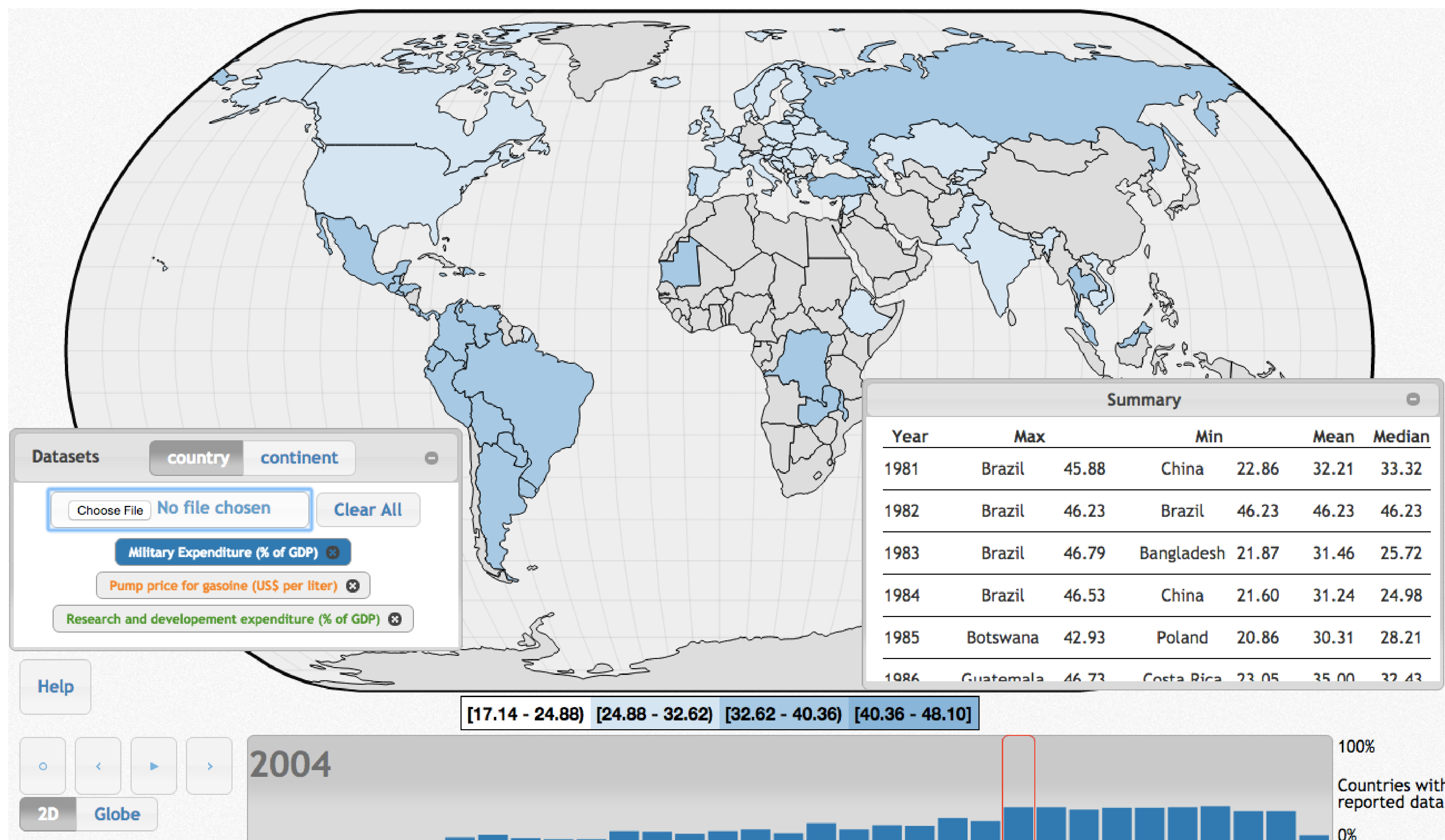


Figure 1: System overview showing the choropleth map, dataset dialog, summary dialog, data histogram, and controls.

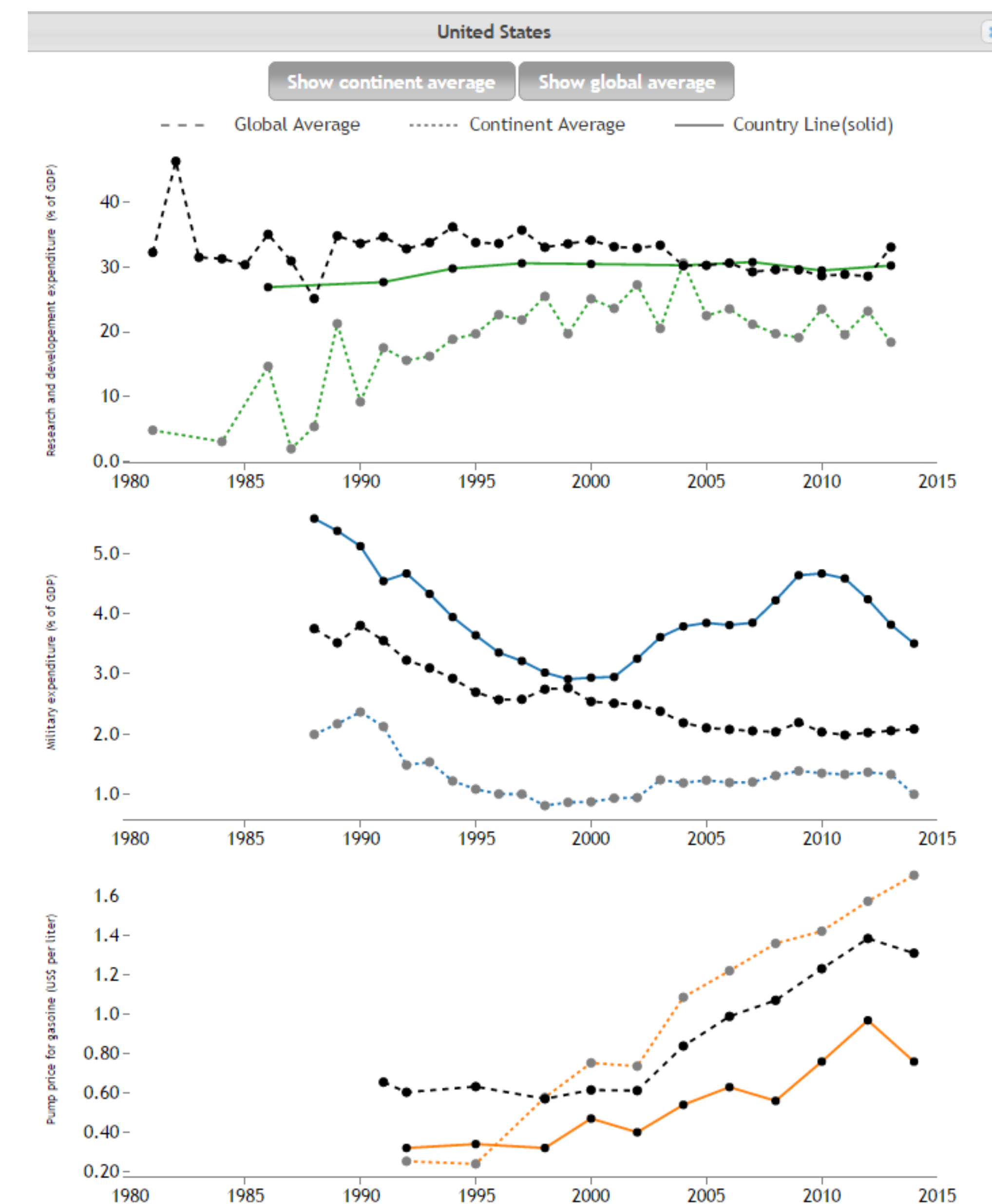


Figure 2: Small-multiples of line graphs is responsive to the number of datasets loaded, by making all datasets visible in the view. This allows the user to view all of the datasets at the same time to identify correlations and trends.

WHAT IS IT?

- Load and visualize datasets of annual world data that have a single quantitative attribute
- Choropleth map shows one year's data for a single dataset for all countries/continents
- Small-multiples of line graphs show all loaded datasets for all years for one country
- Histogram shows the percentage of countries reporting data for each year
- Summary window shows max, min, mean, and median values for each year

[0.22 - 5.66] [5.66 - 11.11] [11.11 - 16.55] [16.55 - 22.00]

Figure 3: The choropleth map encoding is limited to four saturation bins to make the visualization more salient. The lowest bin is near white and the highest bin is the true color given to the dataset.

VISUAL ENCODING & INTERACTION IDIOMS

- Choropleth map encoded with sequential saturation, grey countries have no data
- Choropleth map animated to show how values change over the years
- Choropleth map encoded with country values or continent averages
- Small-multiples of line graphs displayed when a country is clicked
- Displaying averages can be toggled for line graphs; display area of each line graph is responsive
- Histogram is a scented widget; a year can be loaded by clicking a bar
- Histogram reveals density of data per year
- Summary and dataset dialogs can be minimized to reduce distractions

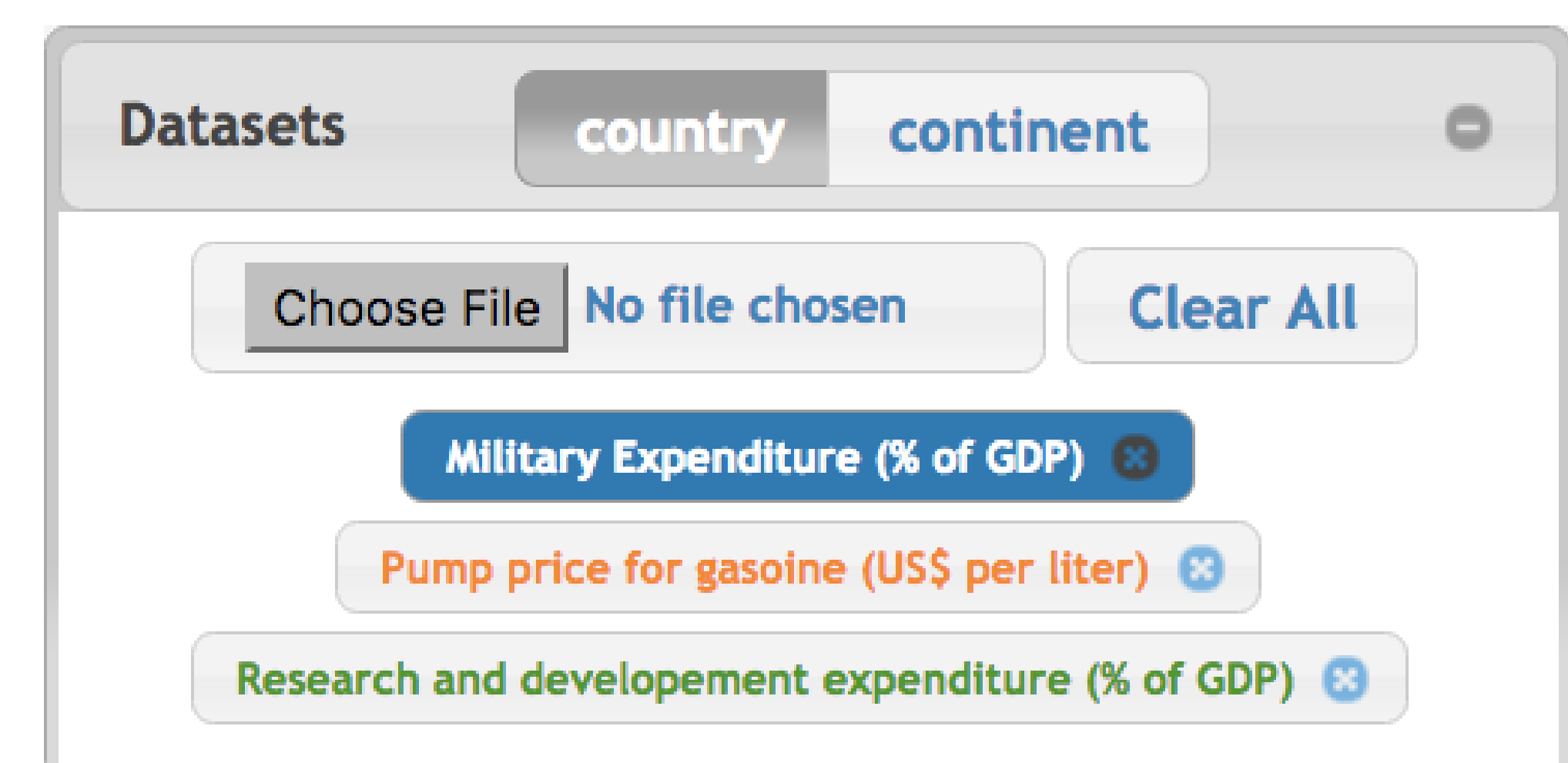


Figure 4: Dataset upload dialog with controls to remove datasets. Each dataset is assigned a color which will be used for the choropleth map and line graph. The header on the dialog has options to toggle the data for the choropleth map to show country values or continent averages.

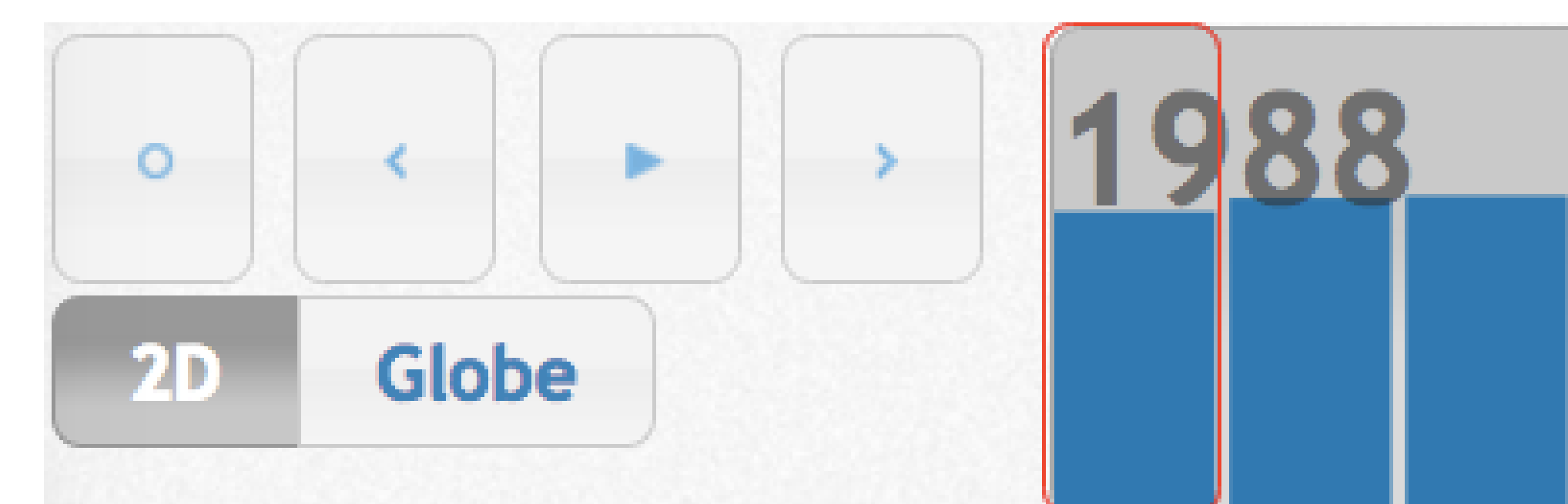


Figure 5: Widgets to control the animation of the choropleth map. The user can play and pause, reset, and advance or rewind one year. The current year is noted in the histogram and the current bar is outlined. Bars of the histogram can be clicked to load the associated year.